GRUMMAN plane news

Light on energy - pg. 6

Fellow pilots salute Sewell

The plane rocks, pitches, and lurches forward; the dials and meters spin, and the pilot hangs onto the control stick. Finally he eases the plane down onto the runway, and climbs out of the cockpit, grinning. "That was some ride."

The pilot is Chuck Sewell, Grumman's chief test pilot and deputy director of Flight Test. But the plane, the runway, and the control tower are all in one large area in Plant 14–in the flight simulator room.

"Flying" the simulator, which duplicates situations and conditions a pilot may encounter in new aircraft, is just one aspect of Sewell's job at Grumman. He spends about an hour and a half every day checking out real airplanes, in addition to filling out reports on every plane he flies and consulting with engineers.

According to the standards of the International Society of Experimental Test Pilots, Sewell's work has been exceptional. At its recent annual awards dinner in Los Angeles, Sewell was named a fellow of the Society for his "outstanding professional accomplishments in flight testing."

Milestones

Sewell has been a Grumman test pilot for 10 years, and has logged over 10,000 hours during his 32-year aviation career. He has won numerous awards, including the 1973 Kincheloe Award as Test Pilot of the Year.

He came to Grumman in 1969 after a 20-year stint with the United States Marine Corps as a figher pilot. He retired as Lieutenant Colonel, with a Legion of Merit award, two Distinguished Flying Crosses, 15 Air Medals and two Purple Hearts.

Sewell has flown every type of aircraft in the Navy's inventory. (Does he have a favorite? "Sure...the F-14. It's a beautiful plane.") He has no complaints of boredom on the job. "It's always exciting," he says. "Always a challenge."

Good fellow. *Grumman's Chief Test Pilot Chuck Sewell was recently elected a fellow of the International Society of Experimental Test Pilots.*

Announce company match

Grumman Corporation recently announced a 53 percent matching contribution to the Employee Investment Plan for the fourth quarter of 1978. The third quarter's match was 54 percent.

The company's matching contribution is based upon Grumman's financial performance during the four quarters which preceded the announcement – in this case, the last two quarters of 1977 and the first two quarters of 1978.

Scholarship deadline

Application deadline for the 1979 Grumman Science and Engineering Scholarship competition is Wednesday, November 1.

Grummanites' sons and daughters who are interested in a career in engineering or science and who will graduate from high school in June 1979 are eligible to compete for the four-year grants (approximately $3,000 per year tuition). Application forms and brochures are now available at all Long Island high school guidance offices.

If you are a Grummanite living outside of the Long Island area and your child wishes to enter, contact the Scholarship office, Plant 28, (616) 575-2682.

An era ends in Marine aviation

Cherry Point, N.C.-Aug. 30 ended yet another era in Marine Corps aviation-marking another disappearance to a rapidly vanishing breed in the Corps.

Chief Warrant Officer Don E. Diederich, a Marine All Weather Attack Squadron-533 bombardier navigator, retired with the distinction of being the last warrant officer in the Marine Corps still flying in the powerful A-6 Intruder.

With only a few warrant officers still flying in tactical jet aircraft, CWO-4 Diederich took off his glistening gold wings on August 30, ending a distinguished career that began in 1950.

Pre-flight check. *Chief Warrant Officer-4 Don E. Diederich, VMA(AW)-533 bombardier navigator, completes his final preflight check of an A-6 Intruder before he retired Aug. 30 as the last warrant officer in the Marine Corps to still fly in the A-6.*

It wasn't until 1958 that he was trained as an enlisted navigator on the C-119 transport He flew the C-119 until 1961 when he joined the giant C-130 fleet as a navigator.

He was commissioned as a warrant officer in 1966 and subsequently selected for training in the A-6 program as a bombardier navigator the following year. After his selection he was sent to Oceana, Va. for three months of basic A-6 training with special emphasis on the radar, inertial navigation and computer systems.

His first stint as a trained bombardier navigator was in 1967 with VMA(AW)-224 here. It wasn't long however, until he was WESPAC bound and serving in Vietnam with VMA(AW)-242 in 1968-69.

Returing to the States, he joined VMA(AW)-332 for the next five years before accompanying VMA(AW)-553 to Iwakuni, Japan for a year.

In 1975, Diederich returned to Cherry Point to serve as an instructor with Marine Air Weapons Training Unit. He's currently serving with Wing Operations.

In 28 years of service, he has accumulated a total of 6,200 flight hours and 2,375 of those are in the A-6 Intruder. In 1968-69, he received the Distinguished Flying Cross and 22 Air Medals for service in Vietnam.

Adding to his long list of awards, he was selected as the Naval Flight Officer of the Year in 1975 by the Commandant of the Marine Corps.

Discount tickets

Employee Services (ES) offices are now selling tickets to the following Broadway shows:

The King and I, Tuesday, October 24, mezzanine seats, $15; *Tribute*, Wednesday, November 1, orchestra seats, $16.

For more information, contact your nearest ES representative.

Pl. 4, Treasury teams hit 100 percent mark

It didn't take the people from Plant 4 and the 280 members of the Treasurer's Office in Plant 30 to hop on the bandwagon. During the first few days of the United Way campaign drive at Grumman, these two groups hit the 100 percent participation mark.

Early bird special

Along with fellow givers across the company, these Grummanites were eligible for inclusion in the company's special Early Bird prize drawing on Friday, October 6. All those who gave the United Way during the first week of the corporate-wide campaign were elibible.

Those lucky givers who won were:

Flight to Bermuda for two (one week): Bob Roemer, Pl. 25. *$300 shopping spree*: Paul Shaw, Pl. 12. *$250 shopping spree*: Tony Fiore, Pl. 24; and Dianne Zaher, GDS. *Gulfstream II trip for two to Disney World, Fla. (five days)*: Richard Clark, Pl. 5. *Gulfstreem II trip for two people to West Palm Beach, Fla. (five days)*: Douglas Nakamura, Pl. 3.

Wrist watches or clocks: Kenneth Lago, Pl. 5; Joseph DeLorenzo, Pl. 2; William Monsen, Pl. 40; William Rosenburg, Pl. 1.

Grumman canoe: Stephen Mauriello, Pl. 44. *One evenings entertainment for two (restaurant/theatre): Victor Himel, Pl. 5.*

Indoor/outdoor portable televisions: Evelyn Wilson, Pl. 35; Alfred Leverton, Pl. 3; Debra Wilenski, Pl. 2; and Stephen Alexander, Pl. 31.

C.B. sets: Nick Masucci, Norfolk, Va.; and Robert Misita, Pl. 35. *Microwave oven*: Guillermo Rivera, Pl. 5.

Today, Friday, October 13, is officially the last day of the Grumman United Way drive at Grumman Corporation and its subsidiaries. But, Vice President Tom Kelly, the year's campaign chairman, has extended the drive an extra few days. So if you've misplaced your card, you still have time to get another one from the Employee Services (ES) offices. If you decide to participate in this worthwhile community effort, don't forget to sign up within the next few days.

The final prize drawing will take place on Friday, October 27, in the Grumman Corporation Headquarters lobby.

Plant 4 tops. *Plant 4 Manager Jim Lacey (2nd R) accepts United Way 100 percent participation plaque for his team from Vice President Tom Kelly (4th R) who's heading up the corporate-wide campaign: Bethpage Ops General Manager Bill Trillo (3rd R); and Frank Leone, director of Plant Operations for Plants 1, 3, 4, 14, and 26. (Photo by Fred Annette)*

retirees

On behalf of the fellow workers, PLANE NEWS salutes the following men and women for their contributions to the company and wishes them well in their retirement. Those who retire in October are:

Edward Sprague (1); Kenneth Cooke (80); Leo Featherstone (75); Fred Scheureman (21); Helen Ulrich (30); Octavio Cacace (3); Charles Rumpf Sr. (2); Charles Duff (2); Edmond Tobin (5); LeVerne Nelson (43); Francis Nelson (1); Howard Shepard (35); Miriam Abrams (35); Charles Klosowicz (3); Celestine Kocurek (3); Olga Szabo (30); John Campbell (1); William James (2); William Treubig (5); Stanley Warren (2); Austin Piazza (3); Ansley Ford (3); Byron Ames (2); John Bailey (39); Walter Beckwith (14); Joseph Cipp (30); Eugene Corvi (5); Charles Gemuendt Jr. (17); James Kydd (3); and Joseph Mele (2).

GRUMMAN plane news

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Calverton plays host

At the U.S. Air Force Institute of Technology's 21st annual Education-with-Industry Symposium, Grumman Aerospace give attendees a close-up look at its final assembly and flight test facilities at Calverton.

Highlight of the tour was a bird's eye view of the USAF/Grumman EF-111A Tactical Jamming System (above). At right, Al Johnson (R), Plant 6 manager, talks with Major Andrew Eakos, (L), EWI Program Manager; and Col. Jimie Kusel, Dean of Civilian Institution Programs. (Photos by Jim Wagner and Gerry Costello)

What's happening around the company

Across the Nation, Grumman Allied Industries is making news.

On September 11, the New York City Transit Authority inaugurated a new express route linking Riverdale in the Bronx with the Wall Street area -- and introduced Grumman Flxible's new Model 870 advanced design bus to New York City commuters. In announcing the introduction of the Model 870, John de Roos, Senior Executive Officer of the N.Y.C. Transit Authority, said, "This bus is a forerunner of the type of equipment now being produced for the years ahead. Its performance will be closely evaluated both from a passenger and operational viewpoint."

Mayor Ed Koch and Gov. Hugh Carey joined Grumman Allied President Bob Somerville, Grumman Flxible President Tom Bernard and Wayne Aaron, Flxible Vice President-Sales and Marketing, on the inaugural express run of 22 miles. The Model 870, painted in the recently adopted Transit Authority color scheme -- a white top with a dark blue stripe -- will be used on the route for three weeks as part of a city-wide test of its suitability on extended bus runs.

Grumman Boats displayed its latest models at the International Marine Trades Exhibit and Conference in Chicago on September 28 to October 1. Attendees at the country's largest marine trade show viewed the sleek 4.6 sport boat and the new 16 ft. and 18 ft. FRP (fiberglass reinforced plastic) canoes.

Olson Bodies recently announced the highest monthly production total in its history -- 1,187 units during August. The Sturgis, Michigan, facility accounted for over 500 of the unit total.

Set retirement meeting

If you're scheduled to retire from Grumman this December, the Pension section of the Personnel Department urges you to attend a special pre-retirement meeting on Tuesday, October 31, from 8 a.m. to noon in the Plant 28 conference room.

Notices will be sent to all those persons who are scheduled for normal retirement on December 31, 1978.

Representatives of the Social Security Administration will attend the meeting to explain such areas of Social Security as worker's benefits, entitlement, enrollment of special cases (retarded children, students), spouse's benefits, etc.; also Medicare including exclusions, current hospital practices, filing claims, etc.

A Grumman representative will discuss such topics as terminated employee's insurance -- description of coverage and limitations (supplemental to Medicare), clarify any misconceptions of coverage, dependent children, etc.; miscellaneous -- Investment Plan, life insurance coverage and conversion, unemployment insurance; disability, Retirees' Club, Credit Union, etc.

Should you have any questions, call Joe Placenza, Ext. 6282.

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That's alot of jacket

He's honored. *Executive Vice President Ralph 'Doc' Tripp presents Bill Trillo, director of Bethpage Operations, with a Level Three Pride of Workmanship award.*

Bill Trillo, director of Bethpage Operations, has a new addition to his wardrobe ... a yellow Pride of Workmanship jacket.

According to the provisions of the program, all the members in a manager's area of responsibility must reach each achievement level before the manager can receive his or her award. And when all Bethpage Operations Manufacturing personnel -- over 2,800 of them -- recently hit Level Three, Trillo was finally eligible for his jacket. Executive Vice President Ralph "Doc" Tripp was on hand to present the award.

The Pride of Workmanship program, which began in July 1975, encourages Grummanites to "do it right the first time." Each succeeding level of achievement makes greater demands for excellence through fewer work defects. This results in a reliable, quality product ... and a satisfied customer.

Although there are groups as high as Level Eight, Bethpage Operations Manufacturing, consisting of 77 departments, is the largest group to have achieved Level Four.

"That's a lot of jackets," grins Bill Trillo.

New 40-footer. *The Pearson 40 is a new centerboard cruiser/racer designed by Bill Shaw and the Pearson Yachts design team. The hull is a refinement of Shaw's 32-foot custom, 'Screech,' which recently captured 'Boat of the Year' honors in Green Bay, Wisconsin; but the emphasis of the P-40 is definitely more cruise than race. The P-40 features a foredeck anchor well, midships traveler, full length cockpit seats, propane stowage, room to stow a dinghy, and plenty of room on the uncluttered deck for sail handling, winch placement, and sunbathing. It is designed to berth seven. Pearson Yachts is a division of Grumman Allied Industries.*

people

Jack Carroll, Assistant to Grumman Aerospace Chairman and President George Skurla, is taking some time off from his regular duties in Bethpage. Until next June, Carroll is on a unique assignment in Washington, D.C., as a participant in the President's Executive Interchange Program.

The program, which was started nine years ago, gives executives in industry and in government the chance to work in each other's territory. Industrial candidates receive government assignments and vice versa. Usually, all participants emerge at the end of the year with a better understanding of the other side's problems and priorities and an enlightened approach to government-industry relations. Carroll will be assigned to the Department of Energy.

Any company or government agency may nominate candidates for the program. From the 200 or so who are nominated, between 50 and 60 are chosen by the selection committee for a wide mix of skills and backgrounds.

"I'm looking forward to the assignment," says Carroll. "Besides being personally enriching, I think the experience of working in government for a year will enhance my effectiveness here when I return."

New appointments

Among those who recently received changes in assignments were: BETHPAGE OPERATIONS – Theodore Adams, section head, Resources Allocation, Pl. 2; CORPORATE QUALITY AND SAFETY OPERATIONS -- Robert Cruz, manager, Inspection, Pl. 3; Pasqual Di Marzo, manager, Inspection, Pl. 4; and Frank Zolezzi, manager, Inspection, Pl. 2; DEPARTMENTAL OPERATIONS -- Constance D'Agostino, group head, Reproducible Composition, Publications, Pl. 15; Thomas Hine, technical specialist, Optics and Displays, Pl. 35; Lawrence Kipnis, project engineer, Product Development Operations Center, Pl. 5; and Richard Orr, manager, Technical Support, Pl. 7; PROGRAM MANAGEMENT -- Kenneth Fields, assistant program manager, Commercial Programs, Pl. 77.

Fulfilling a dream

Mike Antieri's dream was to be a lawyer, but circumstances led him elsewhere. Still, avocationally, Mike kept up with business law and it has helped him in his job with Program Contracts. A few months ago, Mike began to put his avocation to another good use.

He became a mediator for the Suffolk County Community Mediation Center.

The center began operation in May 1977 and is funded by a grant from the U.S. Law Enforcement Assistance Administration through the Suffolk Criminal Justice Coordinating Council. The center's sole purpose is to resolve disputes involving a Suffolk resident and a relative, friend or neighbor.

"The concept is for the community to solve the community's problems," says Mike, "We are interested in keeping cases out of court ... cases that can be solved by mediation. These, of course, are cases of domestic or minor disputes."

Mediation is voluntary on the part of the disputing parties, but once agreed upon, the written settlement that is reached is a legally binding contract.

Disputes have included property damage, harrassment and trespassing, also minor assault - usually between neighbors.

The mediator spends about three hours thrashing out individually and together the problem and solution. "You have to combine the wisdom of Solomon with the patience of Job, but the rewards are worth it," says Mike, "When you see two people who have been at odds with each other, sometimes for years, shake hands and say 'let's be friends,' it's a beautiful feeling."

Host of the week. *On Tuesday, September 19, Grumman Aerospace Senior Vice President John O'Brien welcomed 30 representatives from the U.S. Air Force Aeronautical System Division, Wright Paterson AFB, Ohio, and from numerous top aerospace firms to the 12th Annual Workshop on Cost Estimating. Sponsored by ASD, the three-day workshop was held in Plant 25. Attendees discussed new and existing cost estimating techniques and concepts.*

New procedures

The following Corporate Procedures and Directives were recently published:

A500 - Consultant Services ... Establishing Controls for, Required Approval of and Payments for

A2046 - In-House Training ... Request for

C105 R.1 - Bid and Proposal Projects, Budgets and Bid / No Bid Decisions ... Authorization and Processing of

D221 - Out-of-Production Drawings and Engineering Orders ... Handling of

M606 R.2 - Material Release to Seller: Sale or Consignment on Grumman Purchase Order ... Procedure for

M2030 - Provisional Release of Material

P100 - Property Overview

P191 R. 2B - Equipment and / or Tooling: On Loan from Sellers ... Processing of (Revised page)

P201 - Grumman-Owned Property ... Receipt of

P401 R. 2A - Tagged Property: GAC and Government Owned ... Movement and Transfer of (Revised page)

Copies can be obtained by calling Ext. 8827.

obituaries

PHILIP DI LEO of Field Ops. Services, Plant 35, died September 17 at the age of 54. He had been with the company since 1949 and resided at 32 Francis Terrace, Glen Cove.

Personals

Linda Hackett of Plant 5 has incurred property and personal loss due to a fire. Help is needed. Contributions: (516) 538-0108 after 6 p.m. **Hannah Washington**

On behalf of myself and family, I'd like to express my sincere thanks to all my fellow workers and Grumman employees for their kindness, help and understanding during the recent loss of my father. **Ed Zabo**

My family and I wish to thank all our friends at Grumman and Employee Services for their kind expression of sympathy during the recent loss of my father. **Joseph Biagiotti.**

My family and I wish to express our sincere appreciation to our many friends, co-workers and Employee Services for their thoughtfulness and sympathy during the recent loss of my sister. **Joseph Capone**

My family and I wish to express our thanks to Employee Services and to our many friends at Grumman for the kindness and sympathy shown to us during the recent loss of my father. **Bill Dautrichs**

My family and I wish to express our sincere appreciation for the kindness and sympathy offered by our friends and coworkers, Field Services and Employee Services during the recent loss of my father. **Robert Ferris**

My family and I wish to thank all our friends and coworkers for the kindness and sympathy expressed during my illness and the recent loss of my mother. **Mary Flackenburg**

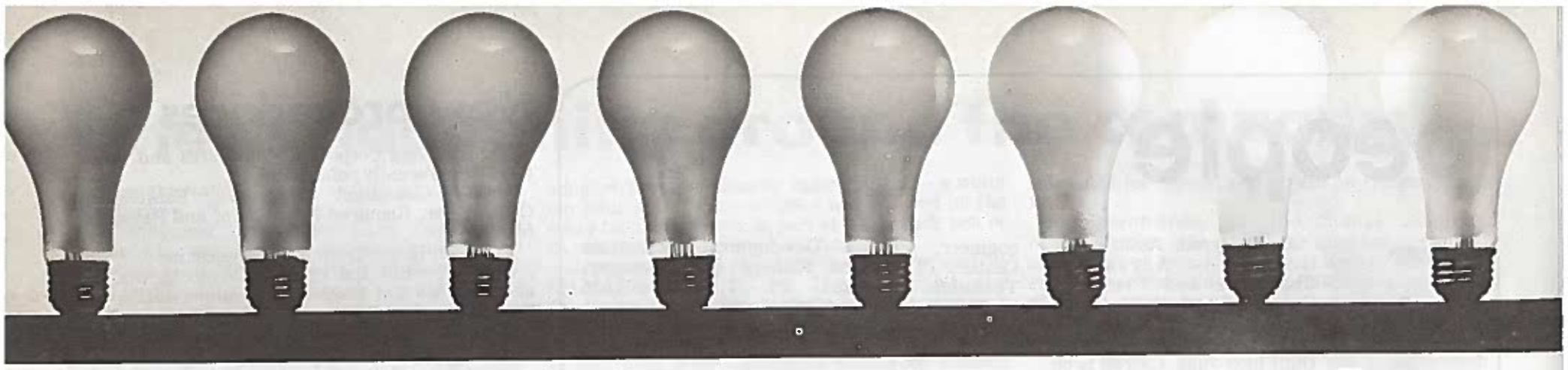
We wish to thank our friends, co-workers and Employee Services for their kind expression of sympathy during the recent loss of our mother. **Joseph and Thomas Haller**

On behalf of my family and myself, I wish to thank all our friends at Grumman who showed their concern during our difficult time. **Mrs. Vincent Sottile**

My family and I wish to express our appreciation to our fellow workers and Employee Services for their kindness, generosity and expression of sympathy during the recent loss of my husband. **Rose Rooney**

My family and I wish to thank our many friends at Grumman and Employee Services for their kind expression of sympathy during the recent loss of my father. **John Van Dormolen**

It is with deep appreciation that we wish to thank all our friends at Grumman Aerospace Corporation for their help and kindness in regard to their donation to our Church's Sunday School. **Beverly Hutchins, Lambert Chapel**



Energy Conservation...learn

It takes a lot of old dinosaurs, used trees, and dead critters to make a gallon of oil; the whole process takes over a million years.

You can take a look at your fuel bills from last winter and figure how little time it takes to use one up.

Scientists tell us that our fossil fuels are running out fast. And although there have been strides in developing alternate energy sources, for the time being, we are still dependent on fossil fuels to heat our homes, run our automobiles, and power the nation. One of the most pressing concerns right now is learning how to use wisely the resources we still have.

Early successes

At Grumman, that concern is the primary task of the Energy Conservation (EC) Services group. Founded several years ago in response to the energy crunch, the group is part of the Facilities Engineering Department, which is headed up by director Tom Cunniffe. Don Stein is deputy director of the EC group, which has a basic staff of about 60 engineers working in Plant 30.

Ten members are assigned to the in-house energy conservation effort; the rest attend to the energy consultation work that Grumman performs under contract for various government agencies. Grumman is presently the major energy consultant for the Department of Energy, and for the National Aeronautics and Space Administration (NASA). However, it was the initial success in effecting substantial savings here that led Grumman to offer its services elsewhere.

On Long Island alone, Grumman maintains over 7 million square feet of facilities. Because of its size and the diversity of its work areas - from office space to shop areas to labs - Grumman presents a complex energy management problem. The Energy Action Center, located in Plant 30, is where the huge task is coordinated. There the EC group hosts weekly reviews of over 50 energy conservation projects; goals are forecast; and progress is tracked and documented.

Plan of attack

The EC group has developed a highly successful formula for organizing an energy program. "Basically, we use a four-phased approach," says Don Stein. "Appraisal is the first phase, in which we determine how much energy is being consumed in a facility. We identify areas that are high energy users and potential losers."

The second stage is survey and analysis ... an in-depth study to find out where energy can be saved. This is done with the help of a Grumman developed computer program called HVAC-1 (heating, ventilation, and air conditioning). HVAC-1 takes all factors into consideration; for instance, weather conditions and expsoure, the use of the facility, the characteristics of its walls and ceilings and the HVAC systems in the facilities. Using this information and the cost of the proposed improvement, the program is used to calculate the energy savings and the length of time it will take for the improvement to pay for itself. At this point, the EC group goes into a review and approval cycle with the Facilities Engineering and other related departments.

The third phase -- implementation -- is where all the paperwork is transformed into actual changes in a building. These changes are made by people in Facilities Maintenance.

"The final phase, monitoring, is the proof of the pudding," says Stein. To simplify that task, the EC group recently installed the EMIS -- Energy Management Information System. The computer keeps track of the energy consumed in every facility -- minute by minute. It gives a readout at 15-minute intervals every day. "Right now, EMIS provides surveillance of electricity only," says Stein. "However, in the near future, it will also track fuel, steam generation, and chilled water."

Stein adds that all facilities at Grumman have been through the first, or appraisal, stage; another 20 per cent have gone through the second and third phases as well.

Action center. *In the Energy Conservation (EC) Action Center in Plant 35, Tom Cunniffe (seated in center), director of Facilities Engineering; and Don Stein, (Seated R) deputy director of EC; look over the latest reports with fellow members of the EC Services group. (Photo by Fred Annette)*

Light level

One of the most successful projects has been the light removal program, according to Stein.

"We took a hard look at our facilities," says Stein, "and discovered that we could easily cut back lighting in areas where functions have changed and still be well within government standards for efficient operation, safety and comfort. We're suiting the lighting to the function. For instance, an area where drafting work is being done will require more lighting than a regular office area; storage areas require minimal lighting.

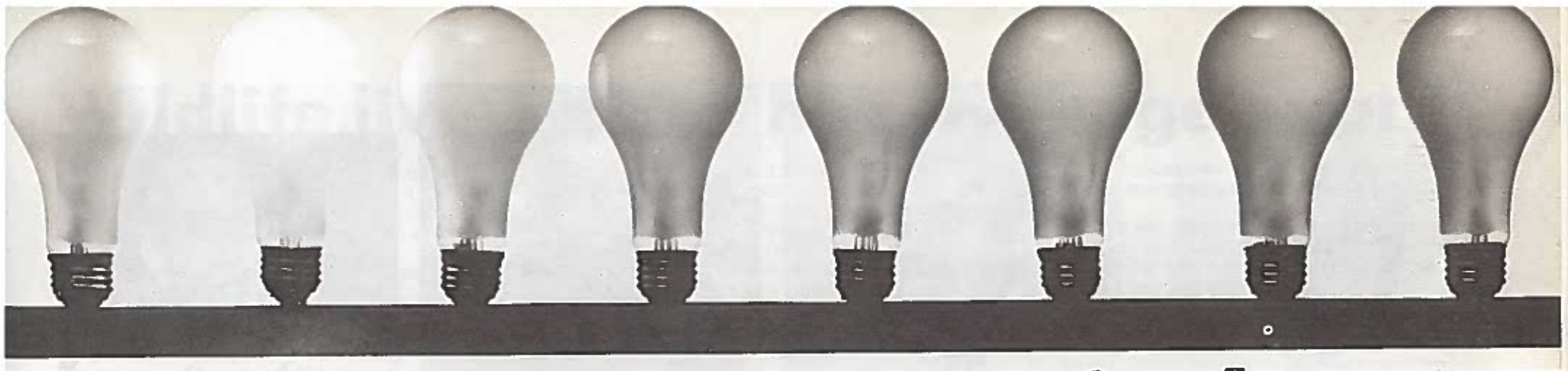
"The trend now is to provide 'task lighting' -- illuminating the immediate work area and cutting back on the overall lighting. Desk lamps, for example.

"In a lot of places, we've simply removed two bulbs from a four-bulb fixture," says Stein. "Overall, the savings have been impressive."

Lights out

The EC group is especially proud of one innovation in lighting that they developed: the Flipmatic System. The device is an automatic switching system that shuts off the lights at 6, 8, and 10, independent of any other requirement. Anyone working at these times can manually turn on the lights they need for their area.

The Flipmatic System, which has been patented, is in use in Plants 25, 30, and 35. The savings effected by it have already paid for its development



ing how to use energy wisely

and installation costs. "It's a product that was developed to fill a need," says Stein, "and it does the job well."

But in most areas, switching is still manual. In this area of energy conservation, "everyone at Grumman can contribute by turning off lights and idle equipment when it's not needed," says Stein.

Control changes

"Much energy is being saved with modifications to our controls of energy consuming equipment. These changes reduce or eliminate simultaneous heating and cooling, while still maintaining comfort requirements. In a response to a request made by the Federal Government, we've been directed by Senior Vice President John O'Brien to insure that the temperatures in our facilities do not exceed the recommended comfort standards. We've been able to accomplish this goal – thanks to the cooperation of everybody at Grumman. Fellow Grummanites can continue to help cut energy waste by making sure doors and windows are kept closed."

The EC group is also involved in a number of energy experiments and demonstration projects. Three solar collector systems have been installed in Plants 28, 4, and 12. "They're all working well," says Stein. "We've gathered a lot of data to evaluate the system in actual industrial operations."

Another demonstration project is in Plant 3, where two large ovens used for a heat-treat and drying process were ducted to the outside.

"We installed some heat pipes – a special heat transfer product developed for use in spacecraft – and transferred the waste heat back into the workspace during the winter months," Stein explains. "It was an ambitious project, but it validated our theory that such applications would be cost-effective."

"The cooperation of all Grummanites has been perhaps the biggest factor in our energy program," says Tom Cunniffe. "Right from the start, people have been willing to make adjustments and accept minor changes in their work environment. They've made a tremendous difference in our efforts ... and keeping Grumman's operating costs down is a vital point in remaining competitive.

Goals for the 80's

"Our goal is to reduce our 1973 level of energy consumption by 40 percent by 1985," says Cunniffe. "We have reduced our energy consumption by 20 but there's still a lot of energy to be saved and costs to be cut.

"We've already passed some important milestones ... but they're just the beginning of a conservation program to meet Grumman's future energy needs."

What you can do on your own homestead

The worst of winter is just a few months away, bringing with it snow, ice, and more degree days than you can sneeze at. You want to keep your heat bills as low as possible ... but short of turning the whole thing off and eating breakfast wearing your ski mittens, what can you do? Add to heating costs the bills for gasoline and electricity and life gets pretty expensive.

The Energy Conservation Services group has a few suggestions. Most of them are for home use ... but you can bring your energy-saving habits to work with you, too.

- About 20 per cent of the heat loss in a house is through the roof. Proper insulation can cut this down.
- Using storm windows creates a dead air space between the inside and the outside windows. The dead air space acts as insulation because it doesn't conduct heat well.
- A ¼-inch gap under an outside door lets in as much cold air as a nine-inch hole in the wall. Adding weatherstripping to the bottom of the door will keep the cold air out.
- When you turn the thermostat down, try to get the humidity up. Most, 68 degree air will be as comfortable as dry, 70 degree air ... and better for your skin, too.

For economical driving:

- Keep your tires properly inflated. Your tires will last longer, and you'll get better gasoline mileage. Radial tires are another gas saver.
- Cars run best on a mixture of gasoline and clean air. Get your air filter changed regularly ... a dirty filter can waste about 80 gallons of gas a year.
- Jack rabbit starts waste gasoline. Keeping your speed down to 55 is safer, more economical - and anyway, it's the law. The most effective gas-saving speeds are from 35 to 40 miles per hour.
- Walk or ride a bike for short trips; use your car only when you really need to. Make use of public transportation.
- Share the ride! Carpooling is a real gas saver.

Around the house:

- A faucet that leaks one drop of water per second can waste over 700 gallons per year. If that's a hot water drip, even more money is going down the drain.
- Quick showers use only half as much hot water as tub baths.
- Check the seals on your refrigerator, freezer, and oven doors. Here's how: close the door on a piece of newspaper or a dollar bill. If you can pull it out easily, you need a new gasket.
- Don't run your washing machine for two pairs of socks and a t-shirt. Wait for a full load. If the weather is good, hang clothes outside instead of running the dryer.
- Use your dishwasher only for full loads, too. And turn the unit off after the final rinse, open the door, and let the dishes air dry.

A few freebies

For more suggestions on energy conservation, write to the Long Island Lighting Company, Community Relations Department, 250 Old Country Road, Mineola, New York, 11501. Ask for their booklet, "Tips For Energy Savers."

The New York State Energy Office also has two booklets, entitled "How to Save Energy And Money in Your Home" - (workbook No. 1 and No. 2). They are available in all Employee Services offices.

You can get your kids in on the act, too. If your offspring stare into the refrigerator as if they're waiting for the commercial, and think the house looks neat with all the lights turned on, an energy-awareness program is in order. The Exxon Corporation has two free comic books on the subject. Write to: Public Affairs Department, Exxon, U.S.A., P.O. Box 2180, Houston, Texas 77001. Ask for "Mickey Mouse and Goofy Explore Energy Conservation" and "Mickey Mouse and Goofy Explore Energy."

What have you done to fight the energy crunch?

Pete Mattina Our house had radiant heat – you know, pipes installed in a cement floor. It was popular in housing a number of years ago, but it's a big energy user. We recently installed a more efficient unit. But I'm also aware of energy savings at work, too. Because of my job as a buyer here, I'm on the road a lot. I keep my speed under 50 miles per hour, don't make any sudden starts, and in general, drive conservatively. I've got over 70,000 miles on my car – so I guess the savings add up.

Dave Carrasco I put in a Grumman Sunstream unit last year to augment our hot water supply. I haven't got the savings figured out in dollars yet, but so far I'm pleased with it. We're using the same amount of fuel, but we've got a lot more hot water. It's working out pretty well.

Wallace Webster We've had extra insulation put in our house, and also thermopane windows. We've already realized some savings. I find that here, at work, I'm inclined to turn off unneeded lighting when I spot it.

George Christiansen I keep the heat down, and try to use the car only when I have to. I try to get a ride into work whenever I can. I live 20 miles away, so that can amount to substantial savings. It's important to be energy-conscious at work too. For instance, this is a paint area and the air blowers are going most of the time. You've got to make sure the doors are shut when the blowers are on or it's wasted.

Olga Szabo I keep the heat lower at night, and put out the lights when I'm watching television. I live only ten blocks away from work, so I walk here most of the time.

Elvin Stallworth Working here in small parts painting, I've become very much aware of energy conservation. *(The paint booth he works in was recently modified by the ECS group.)* Compared to the other booths here, which are wet booths requiring running water at all times, the dry booth saves lots of energy. No water is needed to catch the excess paint spray; instead, the paint is sucked into air filters. Also, the booth turns off automatically every eight minutes – you turn it back on manually if you're still using it. But if you're away from the area, it's off and no energy is wasted. The wet booths are running constantly.

Paul Connors I'm selling my V-8 engine car, and getting a small, four-cylinder one instead. I was carpooling for a while. At home, the usual sort of thing – remembering to turn out the lights, lowering the thermostat. With oil bills of $70 a month, you have to do something.

Adela Acerra I had the house insulated, and got storm windows and doors. I also try to use major appliances – such as the dishwasher or the washer and dryer -- after 10 o'clock at night. I think that's important. At work? That's hard to say. I turn my calculator off when I'm finished, how about that?

Lois Crawley I put up aluminum siding, insulated the windows, closed in the garage area and insulated that, – all in all, it's cut down on my oil bills quite a bit. I try to keep the speed down when I'm driving, and use my car only for work.

About the cover

Grumman photographer Rich Breunig shot the picture for the front cover. In addition, Rich snapped the light bulbs photo that spans the center section and the people on this page.

Wildlife live high on hog in Hedge's yard

A backyard project that began with a leaky fishpond nine years ago and grew into a refuge for more than 30 species of wildlife has earned a unique honor for Grummanite Charlie Hedges and his wife Maria.

Their two-acre homesite in Cold Spring Harbor has been certified as National Wildlife Backyard Habitat No. 1000 by the National Wildlife Federation (NWF).

The Hedges' property, which now encompasses two ponds, a waterfall, wild rice, cattails, half a dozen bird feeders, and 22 varieties of trees and shrubs, was registered as the 1,000th mini-refuge in an international network of privately-owned sanctuaries for local wildlife. The certificate was issued after the NWF determined that their yard provides the four basic requirements for wildlife habitat - food, water, cover, and areas for raising offspring.

In the Plant 1 Liasion Engineer's yard, food for a variety of birds and small mammals is provided by both native and nursery-purchased plants and trees, such as maple, sunflower, coral berry, wild black cherry, ash, autumn olive, and dogwood. Acorns and hickory nuts keep the squirrels fat and happy. And the Hedges keep their handmade and store-bought feeders will stocked with birdseed, suet, corn-on-the-cob, and peanuts.

"The highlight of the Hedges' sanctuary is their pond complex," says Craig Tufts, coordinator of NWF's Backyard Wildlife Habitat Program. When their small, plastic-lined pool sprung leaks nine years ago, the Hedges searched for a more suitable lining. They descovered that a special clay, bentonite, made a perfect natural base.

The pond was so popular with wildlife residents that the Hedges dug a second, larger pond into the sandy, Long Island soil. This pond now spills down a pebble-lined stream into the smaller, lower pond. Water is recirculated by a small pump. The Hedges planted cattails, wild rice, arrowhead, and water lilies, poppies, and hyacinth in and around the stream and ponds, creating habitat for fish, salamander, frogs, toads, and turtles.

Birds, opossums and other animals stop by for drinks and baths. In the winter, the Hedges use an electric heater to keep a small area open and ice-free.

The Hedges put a great deal of effort into providing their wildlife with cover. A hemlock hedge over 100 feet long provides shelter from wind and snow. Clumps of Norway spruce and Austrian pine trees also offer shelter, as do a variety of low-growing shrubs -- rhododendron, mountain laurel, viburnum, honeysuckle, and many others. "After Christmas," says Charlie, "we gather discarded Christmas trees and stand them in groups for additional winter coverage."

During the nesting season, the 25 species of birds the Hedges have sighted -- from cardinal to purple finch to screech owl -- can find a comfortable home in nesting boxes placed high in the branches of several trees or on the small platforms attached to trees and trellises. Even the squirrels can choose their own specially-designed nesting box. In addition, the Hedges built stone walls and stone, brush, and log piles -- perfect homes and hiding places for chipmunks, mice, and other small creatures.

As the 1000th yard to be certified in the Backyard Wildlife Habitat Program, the Hedges' property is part of a tradition which began in 1973. That year, an article entitled "Invite Wildlife to Your Backyard" appeared in the April-May issue of National Wildlife magazine, a bi-monthly publication of the National Wildlife Federation. The article included landscaping plans so that anyone with a standard-sized yard could extend an hospitable invitation to the local birds and beasts.

Over 500,000 reprints of that article have been distributed, and today, NWF-certified yards like the Hedges' can be found in 45 states, Puerto Rico, and three Canadian provinces.

If you'd like to create your own mini wildlife reserve, you can get more information and a free Backyard Kit by writing to the Backyard Wildlife Habitat Program, National Wildlife Federation, 1412 16th Street, N.W., Washington, D.C. 20036.

Landmark. *Charlie and Maria Hedges' two-acre homesite in Cold Spring Harbor has been certified as National Wildlife Backyard Habitat No. 1,000 by the National Wildlife Federation. (Photo by Bob Settles)*

calendar

Am. Prod. & Invent. Cntrl. Society: Tues., Oct. 17, 6:30, dinner / 8:00, speaker, Antun's, Hicksville; presentation: "Customer Service And Inventory Management Strategy;" guest speaker: Eric Landau, Scientific Time Sharing; guests welcome. N. Heilweil, Ext. 2250.

American Society of Mechanical Engineers; Thurs., Oct. 19, 6:30 p.m., Antun's, Hicksville; speaker: Richard Pearson, Grumman Energy Conservation; guests welcome. L. Hemmerdinger, Ext. 6168.

Equestrian Club: every Mon-Thurs., after hours, Mrs. D's, Woodbury; classes / trail rides; guests welcome. J. Borzell, Ext. 6865.

Flying Club: Fri., Oct. 13, Pl. 28 auditorium; regular monthly membership meeting; guests welcome. R. Reisch, Ext. 3286.

Folk Dancers Club: every Tues., folk dancing, every Thurs., hustle and ballroom dancing; some instructions available lunchtime; receiving area Pl. 6; all welcome. E. Urciuoli, Ext. (117) 6688.

Hockey Club: every Sun., 5:30-7:30 p.m., Cantiague Park, Hicksville; competitive European style hockey. A. Gibson, Ext. 2648.

IEEE Reliability Chapter: Tues., Oct. 17, 7:00 p.m., Polytech. Inst. of N.Y., Farmingdale; speaker: Karl Hermans, Gull Airborne Instruments; guests welcome. J. Drvostep, Ext. (115) 3530.

Model Railroad Society: every Wed., 5:30-9:30 p.m., Model RR Bldg. (at Pl. 3 rr crossing); regular meeting; guests welcome. R. Muntz, Ext. (115)6044.

National Secretaries Association; Tues., Oct. 19, 6:30 p.m., Polish Independent Club, Riverhead; monthly chapter meeting; guest speakers: Norma Aschner, Grumman Aero. Corp. / Josephine Longora, Hughes A / C; guests welcome. E. Gaias, Ext. (117) 7397.

Retiree Club: Wed., Oct. 25, 12 noon, Huntington Town House, Annual Oct. Luncheon; all welcome. H. Chlanda, Ext. 4130.

Rod & Gun Club: Wed., Oct. 18, 7 p.m., Grumman Data Institute, Syosset; quarterly meeting; guests welcome. G. Capua, Ext. 2095.

Ski Club: Wed., Oct. 25, 8:30 p.m., Hillside Restaurant, Plainview; live entertainment; friends and guests welcome. A. Garmendia, Ext. 7819 / 8910.

Society of Logistics Engineers: Tues., Oct. 24, 6:00 p.m., Antun's, Hicksville; guest speaker: Thomas A. Downey, Representative, U.S. Congress; guests welcome. S. Paschier, Ext. (115) 6087 / A. Pinker, Ext. 4363.

Stamp Club: first 3 Wed. every month, after hrs., Pl. 35 cafeteria; sale and trading activities. C. Sammis, Ext. 8640.

Tennis Club: 2nd Wed. of every month, 5 p.m., classrooms A and B, Pl. 5. P. Andrews, Ext. 7345.

Toastmasters Club: Wed., Oct. 18, 5-7 p.m., conference room C, Pl. 25; regular bi-weekly meeting, prepared and impromptu speeches. J. Allison, Ext. 3475.

Goldberg, Dvoskin duo win titles

In the Bethpage "B" division of men's singles, Phil Goldberg had a few close matches on his way to the finals and had to come from behind to wrest the championship from Tom Burghard. Losing the first set 3-6, Goldberg rebounded to take the match and the trophy, 6-3, 6-1.

The results of the tournament, round by round:

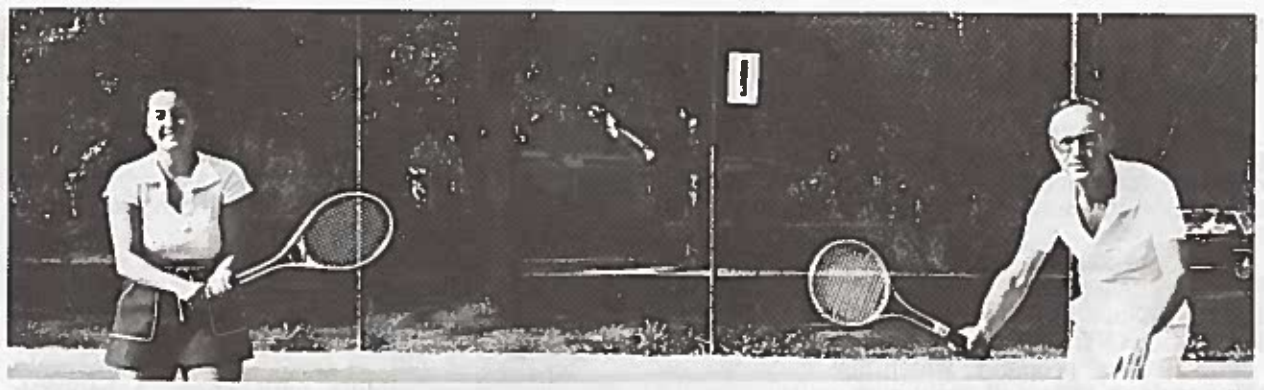
Men's Singles
"B" Division - Bethpage

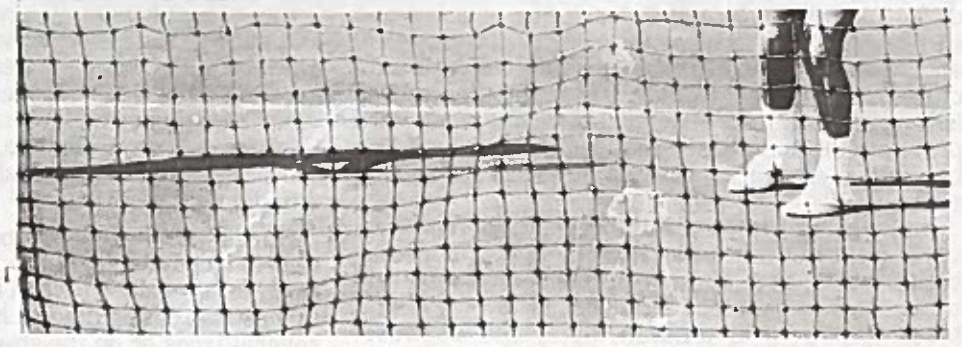
First round: Doug Murray def. Steve Bodensiek 4-6, 7-5, 6-4; Steve Mancini def. Val Kirillin 3-6, 6-1, 6-4; Bob Jarvis def. Herb Goldberg 7-5, 7-5; Ron Thuma def. Frank Dozal 7-6, 6-2; Phil Inserro def. Greg Marino 6-1, 6-1; Mike Verderosa def. Howard Klein 6-1, 6-3; Steve Hambsch forfeit to Sam Sciglio; Bill Harris def. Carlos Anderson 6-1, 6-4; Randy Weiss forfeit to John Rochfot; Charles Bobellis def. Murray 6-4, 7-6; Jerry Kirsch def. Les Spence 6-2, 6-1; John O'Toole def. Mancini 3-6, 6-1, 6-4; Fred Tabick def. Bill Lyons 6-1, 6-1; Jim Campbell def. Diran Panshoukian 6-2, 6-4; Ray Passalacqua def. Lou Pizzo 6-4, 2-6, 6-4; John Breitfeller def. Jarvis 6-1, 3-6, 6-4; Dick Eberl def. Ross Fleissig 6-4, 7-5; Dick Strollo def. Richard Engelbart 6-2, 6-1; Thuma def. George Moletz 6-3, 3-6, 7-1; Tom Burghard def. Tony Razziano 6-4, 6-1; Robert Schmitt def. Fred Neuscheler 6-0, 6-0; Frank Sobierajski def. Ed Poehman 3-6, 7-5, 6-1; Inserro def. Bill Peluso 6-0, 1-6, 6-4; Tony Antonucci def. William Bostrum 6-2, 6-1; Harvey Fromer def. Bob Schwartz 6-2, 6-2; Jim Eckert def. Elmer Bauer 3-6, 6-2, 6-4; Ed O'Gara def. Ed Ramirez 6-2, 6-2; Verderosa def. Charles Laganas 6-2, 6-0; Stan Teich def. Sam Knight 6-0, 6-1; Murray Romano forfeit to Vin Accola; Charlie Kohl def. Tony Asara 6-1, 6-2; Art Fischer def. Vin Tricamo 6-3, 6-0; Sciglio def. Larry

Phil Goldberg

Kollender 3-6, 6-2, 6-4; Phil Goldberg def. Craig Lemire 6-1, 1-6, 6-2; Frank Marconi def. Bob Owen 6-2, 3-6, 6-2; John Castle def. Steve Bianco 6-0, 6-0; Don Brady def. Harris 7-5, 7-5; Larry Bird def. Don Nicosia 6-0, 6-2; Angelo Caporaso and Don Markarian withdrew; Rochfot forfeit to John Schrittwieser; John White def. Pete Baena 6-1, 6-1.

Second round: Kirsch def. Bobellis 6-1, 6-1; O'Toole def. Tabick 6-2, 6-2; Passalacqua def. Campbell 6-0, 6-4; Eberl def. Breitfeller 6-4, 6-4; Strullo def. Thuma 3-6, 6-2, 6-3;, Burghard def. Schmitt 6-4, 6-4; Inserro forfeit to Sobierajski; Fromer def. Antonucci 6-0, 6-1; Eckert def. O'Gara 6-4, 6-1; Teich def. Verderosa 6-2, 6-1; Kohl def. Accola 7-5, 7-5; Fischer def. Sciglio 7-5, 6-1; Goldberg def. Marconi 6-0, 6-1; Castle def. Brady 6-1, 3-6, 6-4; Bird wins by forfeit; White def. Schrittwieser 7-6, 6-1.





King and Queen of the court. *Alicia and Norm Dvoskin are Bethpage's mixed doubles champs for 1978. (Photos by Marie Trimborn)*

Third round: O'Toole def. Kirsch 4-6, 7-5, 6-2; Passalacqua def. Eberl 6-2, 6-3; Burghard def. Strollo 6-2, 6-2; Fromer def. Sobierajski 6-0, 6-1; Teich def. Eckert 6-0, 6-2; Kohl def. Fischer 6-1, 6-4; Goldberg def. Castle 6-1; 6-4; White def. Bird 6-2, 6-1.

Quarter-finals: O'Toole def. Passalacqua 6-3, 6-0; Burghard def. Fromer 6-3, 7-6; Kohl def. Teich 6-1, 6-4; Goldberg def. White 7-5, 6-4.

Semi-finals: Burghard def. O'Toole 6-2, 6-0; Goldberg def. Kohl 6-2, 6-7.

Mixed Doubles -- Bethpage

In the mixed doubles, Goldberg teamed with his wife Bernice and gained the finals against Norm and Alicia Dvoskin. The Dvoskin's toughest match before the finals was a 6-4, 6-1 victory in the semi-finals over Craig and Betty Langwost while the Goldbergs were hard put to defeat Dick and Molly Kline in the semis, 7-6, 4-6, 6-3.

In their final match of the season, the Dvoskins fell behind for the first time in the tournament, 2-4. The father / daughter team then rallyed to pull out the set 6-4.

In the second set the Dvoskins again fell behind to the Goldbergs 2-4 and once again swept the next four games for a straight set 6-4, 6-4 victory and the mixed doubles championship.

The results of this tournament, round by round:

First round: Bob Schwarz/Marie Wood def. Steve Hambach/Barbara Drapani 4-6, 6-3, 6-3; Jacques and Dorothy Crouzet-Pascal forfeit to Jerry and Carol Kirsch; Carolos and Beverly Anderson forfeit to George Patterson/Joan Ullman; Steve Bodensieic/Marie Corpora def. Vince and Maria Ticamo 7-6, 6-1; Roy and Pam Haddon def. Bill Harris/Cynthia McKendrick 6-2, 6-3; John and Katherine Hsu def. Ken and Ann Keen 7-6, 6-4; Dick and Molly Kline def. Schwarz/Woo 6-0, 6-0; Harvey Fromer/Pat Corino def. Charlie and Guodo Bobelis 7-6, 6-2; Art and Bea Fischer def. John Castle/Toni Respol 6-2, 6-2; Jerry Fogel/Irene Gentile def. Pete Baena/Jerri-Anne Cirino 6-3, 6-1; Fuh Lin and Barbara Wang forfeit to Roy Harris/Jo Ann Daly; Frank and Michelle Dozal def. Tony and Margo Razziano 6-3, 6-2; Phil and Bernice Goldberg def. Patterson/Ullman 6-2, 6-0; Tim and Linda Eckert forfeit to Andy Kaufmann/Annette Frisch; Jacques Frishman/Pauline Pearson def. Bodensieic/Corpora 6-1, 6-4; Bob and Roberta Nielsen forfeit to John and Diane Breitfeller; Norman and Alicia Dvoskin def. Henry Degamon and Valarie Pesce 6-0, 6-0; Clarence Wenzel/Kathy Housley def. Bob and Pat Ogilvie 6-7, 6-2, 6-1; Joe Kirkup/Joan Trukafka forfeit to Haddon/Haddon; Ron and Steffie Boyland def. Grant Hedrick/Mary Mikol 6-3, 6-7, 6-0; Craig and Betty Langwost def. Hsu/Hus 3-6, 6-2, 6-4.

Second round: Kline/Kline def. Fromer/Corino 6-4, 6-4; Fischer/Fischer def. Gentile/Fogel 6-3, 6-7, 7-5; Harris/Daly def. Kirsch/Kirsch 4-6, 6-3, 6-4; Goldberg/Goldberg def. Dozal/Dozal 6-0, 6-1; Kaufman/Frisch def. Frishman/Pearson 7-5, 7-5; Dvoskin/Dvoskin def. Breitfeller/Breitfeller 6-1, 6-1; Haddon/Haddon def. Wenzel/Houseley 6-1, 6-3; Langwost/Langwost def. Boyland/Boyland 6-1, 6-1.

Quarter-finals: Kline/Kline def. Fischer/Fischer 6-2, 6-3; Goldberg/Goldberg def. Harris/Daly 6-3, 6-3; Dvoskin/Dvoskin def. Kaufman/Frisch 6-2, 6-1; Langwost/Langwost def. Haddon/Haddon 6-2, 6-0.

Semi-finals: Goldberg/Goldberg def. Kline/Kline 7-6, 4-6, 6-3; Dvoskin/Dvoskin def. Langwost/Langwost 6-4, 6-1.

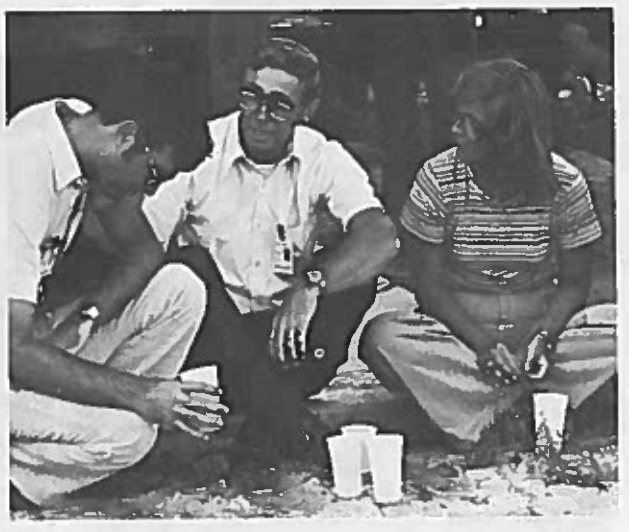
California winners. *Champion Russell McQueen is congratulated by runner-up Michael Piluso at the conclusion of the second annual Pt. Mugu table tennis tournament, held at Plant 88. Both players work in the Product Modification and Test Department.*

Stuart opens field for fun in the sun

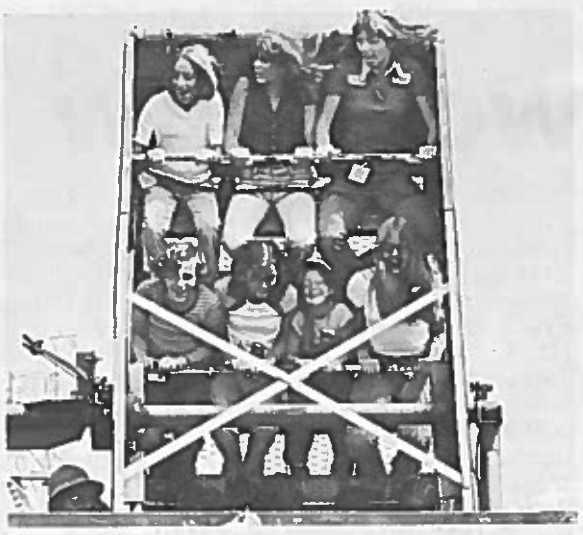
Ed Dalva, Vice President and General Manager of Stuart Operations, recently threw a party to officially open Plant 77's new picnic grounds. Right after work, Grummanites christened the southern mini-McKay Field.

The new recreation area sports a covered pavilion, barbeque grills, picnic tables and horse shoe pits. The softball field and bocce courts will be completed by the end of the year.

Plant 77 Grummanites interested in using the new recreational facility for department picnics and the like, should contact Frank Walton, Ext. 342.



Great River throws big family affair



Hundreds of Grummanites and their families recently gathered at the Great River Picnic grounds for their annual family picnic. Once again, General Manager Bruno Caputo and his corps of volunteers demonstrated that they know how to throw a great Saturday afternoon picnic for the entire Great River family.

Top order of the day was to have good old fashioned fun. And, the Great River bunch did just that. (Photos by Jim Wagner)

King of the show. *Karl Hagen (R) accepts first place trophy from Garden Forum show director Roy Goddard. (Photos by Marie Trimborn)*

King of dahlias wins flower show

Karl Hagen walked off with the Best of Show Trophy at the Grumman Garden Forum's Fall Garden Show in the Plant 35 cafeteria on eptember 14. No newcomer to the winner's circle, Karl has been growing and exhibiting prize-winning flowers for nearly 20 years. His entry, a huge salmon-colored dahlia, was unanimously declared the best of the best.

Now a Grumman retiree, Karl won his first flower show shortly after he joined the company in 1951. According to Karl, anyone can raise champion flowers. The secret, he claims, is in the quality of care each plant receives. For Karl, growing dahlias is a rewarding, yet time-consuming endeavor. Karl's garden requires full-time attention from the beginning of April through the first frost of the year. As proof of his horticultural talents, Karl dominated two other categories this year, placing first, second, and honorable mention in the Single Dahlia and first in the Dahlia Assortment classes.

The first place winners in all categories received bird feeders and the second, third and honorable mention competitors received gift certificates to the Employee Services Shops. Additional winners were: Dahlia - 3rd, John McGuckin; Dahlia Assortment - 2nd, Gerald Berman; 3rd, Frank Sadowski; Seasonal Assortment - 1st and 2nd, Gerald Berman; 3rd and HM, Frank Sadowski; Seasonal Material - 1st, Marie Bennett; 2nd, Joan Blitzer; 3rd, Norma Rooney; HM, Roy Goddard; Novice - 1st, Bill Findlay; 2nd, Mary Hutter; 3rd, Norma Rooney; Arrangements - 1st, Jim Litterello; 2nd, Anne Prochroff; 3rd, Karl Hagen; Fruits - 1st and HM, Charles Chlanda; Vegetables - 1st, David Klieman, 2nd, Ralph Palomba; 3rd, Joseph Nalevaiko; HM, Charles Chlanda; Vegetables, Class 2 - 1st, Charles Chlanda; 2nd, Ham LePorte; 3rd, Mike Gabriel; HM, Helen Chlanda; House Plants - 1st, Mary Harse; 2nd, Carol Taibbi; 3rd, Doris Picardi; HM, Peg Hilbert; House Plants, Potted - 2nd, Elizabeth Paris; 3rd, Fern Bert; and HM, Pete Mustich and Eugene McCormack.

GRUMMAN plane news

ADDRESS CORRECTION REQUESTED

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